

REMARKS/ARGUMENTS

The applicants thank Examiner Sample for the courtesies extended during the telephone interview conducted on April 28, 2006. The substance of the discussion during the interview is incorporated in the following remarks.

Claims 25-50 and 52 remain pending herein. Claims 29-48 have been withdrawn from consideration by the U.S. PTO.

Claims 25-28 and 49-52 were rejected under 35 USC 112, first paragraph.

The U.S. PTO questions whether the original specification provides support for the recitation "*said shaped body comprising a three-dimensional structure including pores defined between said particles.*"

Zeolites, also referred to as molecular sieves, are well-known. Zeolites are inherently porous, each molecule defining one or more passageway through its molecular structure. Accordingly, zeolites have been employed as membranes.

It is also well-known to mount zeolite membranes on porous supports. Lai '617 (of record in the present application) discloses such a structure (the porous supports employed in Lai '617 are listed at column 2, lines 32-38). In accordance with the present invention, in order to avoid cracking the support and to minimize the pressure drop across the entire structure, there is provided a porous zeolite support having pores between the zeolite molecules and having a TPA/SiO₂ ratio as recited in the claims.

The specification clearly contains disclosure which supports the claim recitation which is objected to in the Office Action. For example, the original specification, page 19, lines 19-20 recite "... a zeolite shaped body of the invention is preferable to be a porous zeolite composed of *particles of a zeolite* ... [emphasis added]."

In page 40, lines 20-21, the specification states "A zeolite shaped body of the invention is a porous zeolite shaped body composed of *particles of a zeolite* [emphasis added]."

In view of the fact that each zeolite molecule is inherently porous, the presence of the word "porous" in the expression "porous zeolite shaped body" would clearly be understood to refer to pores other than the pores within the zeolite itself.

Consistent with these disclosures, page 9, lines 23-25 states "A porous zeolite shaped body of a zeolite, characterized in that the porous zeolite shaped body has an *average* particle diameter of 1.0 μm or larger . . . (similar recitation appears in original claim 7) [emphasis added]."

Original claim 16 recites "A porous zeolite shaped body of a zeolite . . . where respective particles are clearly observed by grain boundary fracture among particles composing the zeolite shaped body in microstructure observation . . . [emphasis added]."

The original specification does not contain the *exact* wording "... three-dimensional structure including pores defined between said particles . . .", but exact wording is not required in order to satisfy the written description requirement. The original specification contains disclosure which indicates to persons of skill in the art that the shaped body is three-dimensional and that it includes pores between the particles of zeolite.

In addition to the disclosure referred to above, in page 59, lines 13-16, the original specification discloses:

[r]espective zeolite shaped bodies obtained in the examples 1 to 5 and the comparative examples 1 to 7 were subjected to x-ray diffraction to investigate their crystal phase and find that they were *porous bodies* of a MFI type zeolite . . . [emphasis added].

Likewise, in page 61, lines 17-23, the original specification discloses:

[r]espective zeolite shaped bodies obtained in the examples 6 to 11 and the comparative examples 8 to 10 were subjected to x-ray diffraction to investigate their crystal phase and find that those obtained in the comparative examples 9 to 10 were *porous bodies* of a MFI type zeolite and that those obtained in the examples 6 to 11 were *porous zeolite bodies* still under crystallization comprising a MFI type zeolite and amorphous zeolite. [emphasis added].

In addition, the photograph shown as Fig. 1 makes it quite evident that the claimed invention provides a three-dimensional structure. Even the term "body" indicates a three-dimensional structure.

The above-noted disclosure clearly indicates that the original specification describes a shaped body which comprises a plurality of completely crystallized zeolite particles, and which comprises a three-dimensional structure including pores defined between the particles.

The applicants acknowledge the indication by Examiner Sample during the interview conducted on April 28, 2006 that the specification and claims 25-28 and 49-52 are in compliance with 35 U.S.C. 112.

Accordingly, it is respectfully requested that the U.S. PTO reconsider and withdraw this rejection.

In addition, it is respectfully noted that WO '378, of record in the present application, corresponds to U.S. Patent No. 6,667,265.

If the Examiner believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

Respectfully submitted,

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Date


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